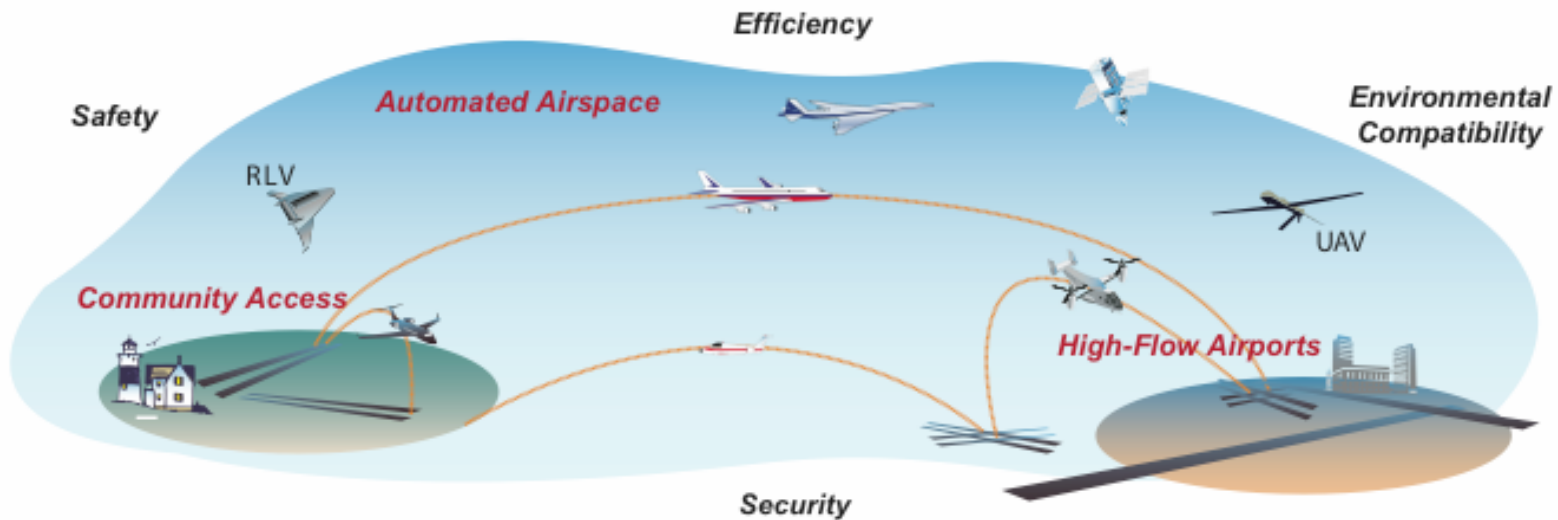# Virtual Airspace Modeling and Simulation
Technical Interchange Meeting V

Harry N. Swenson

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**NASA Ames Research Center
Moffett Field, California**

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Welcome

- **The purpose of this TIM is to share VAMS results.**
  - Concept evaluations using the Airspace Concept Evaluation System (ACES) Build 2 tools, common scenario and metrics.
  - Define the approach for blending and the analysis of the VAMS concepts into a system-wide operational concept.
  - Results of Real-time verification simulation.
  - Airspace Concept Evaluation System (ACES) Build 3.
  - Common experiment plan.
  - ACES Validation.
  - University speakers.
  - Joint Planning and Development Office speaker.
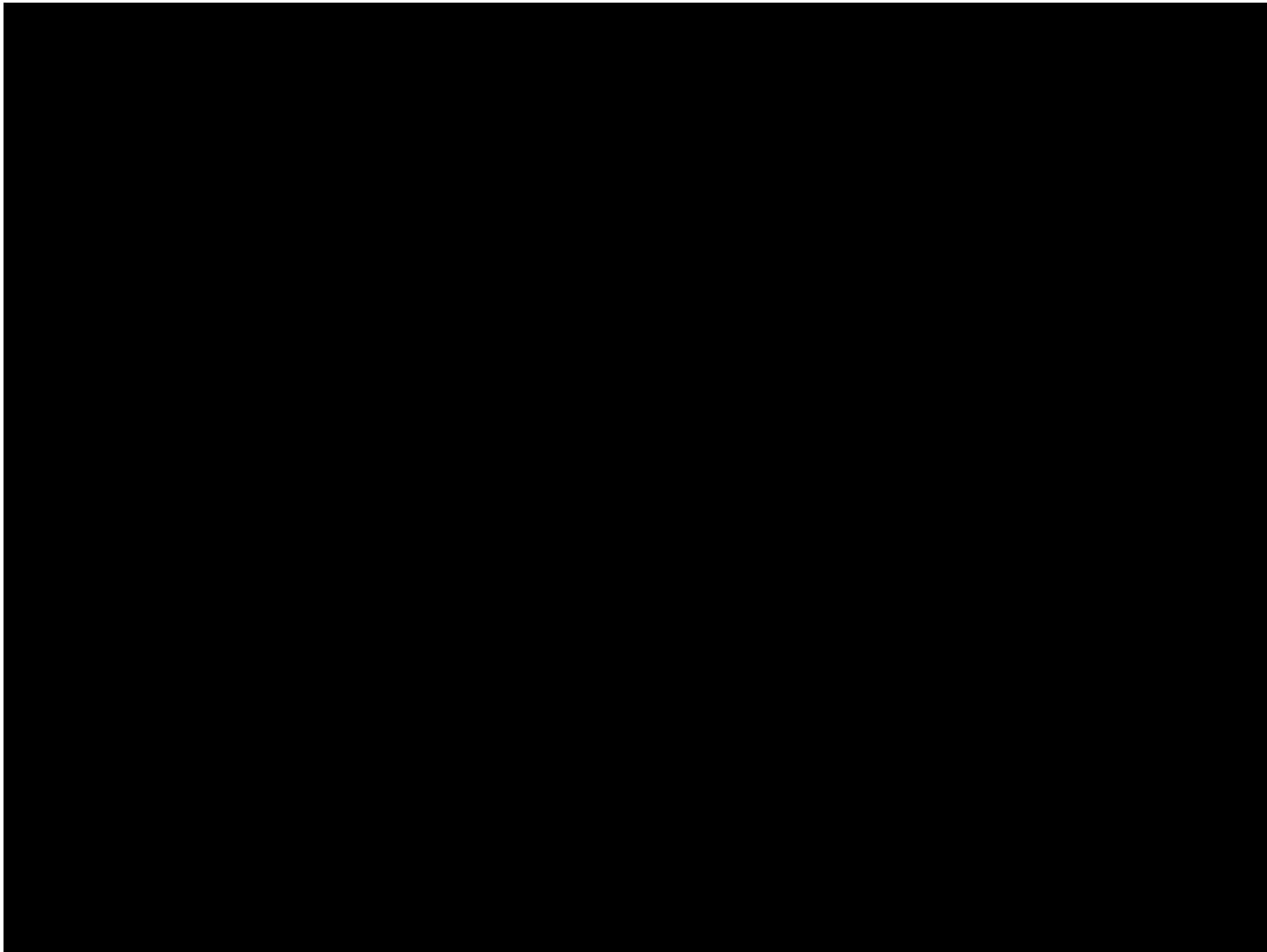
VAMS Highlights

- **ACES Build 2 Usage**
  - Concept Developers
  - JPDO

- **ACES Build 3 Development and Evaluation**

- **Concept Analysis**

- **Real-Time Simulation Validation**

- **Preparation for VAMS Real-Time Simulation of the SOAR Concept.**

- **National Research Council (NRC) Report**

Earmarks

- **4 Million Dollar Direct Impact**

- **Prioritized**
  - Conceptual Blending and System-wide Analysis

- **Loss – Shuttered our Real-Time Simulation Capabilities and Facilities**
  - Analysis using ACES of WakeVAS
  - Surface Concept

- **Future**

ACES…the movie

Questions Regarding the future of VAMS

- **VAMS has developed detailed descriptions of how automation technologies can be used to enhance the operations of the National Airspace Systems (NAS). How can we make the vast quantity of information useful to the Joint Planning and Development Office (JPDO) or other potential stake holders?**

- **VAMS has developed a unique and innovative tool for system-wide analysis of conceptual and technological changes to the NAS. How can this resource best be used by the JPDO or other potential stake holders?**

- **Do we know enough to begin the necessary trade space analysis of different changes to the NAS identified in the concepts?**

- **Can a list of items be generated that can aid in the costing of conceptual changes to the NAS be generated?**

VAMS – Technical Interchange Meeting #5, March 8-9, 2005

Tuesday 8-March	Agenda and Schedule	Wednesday 9-March
7:30 a.m. Conference Center opens for meeting registration		7:30 a.m. Conference Center opens
I 8:30 a.m. **Welcome** (H. Swenson) **(30 min)** • Goals & Objectives • Overview of Agenda • Project Update		X 8:00 a.m. **Opening/Context** (R. Fong) **(5 min)**
		XI 8:05 a.m. **Metrics Annualization and Evaluation** (Prof. M. Hansen) **(25 min)** • Annualization • Nationalization
II 9:00 a.m. **Concept Developer Phase III Reports** **Langley Research Center** (J. Smith) **(50 min)**		XII 8:30 a.m. **Real-Time Verification & Validation Simulation** (D. Ballinger/S. Lozito) **(1 hour)**
9:50 Break (15 min)		XIII 9:30 a.m. **ACES Build 3 Capabilities** (P. Cobb) **(30 min)**
III 10:05 a.m. **Optimal Synthesis** (Dr. V. Cheng) **(50 min)**		10:00 Break (15 min)
IV 10:55 a.m. **Seagull Technology** (D. Schleicher) **(50 min)**		XIV 10:15 a.m. **Common Experiment Plan** (K. James) **(45 min)** • Results to date
11:45 a.m. Catered Lunch (75 min)		XV 11:00 a.m. **Airspace Concept Evaluation System (ACES) Validation** (S. Zelinski) **(45 min)**
V 1:00 p.m. **Metron Weather** (Dr. J. Krozel) **(50 min)**		11:45 a.m. Catered Lunch (75 min)
VI 1:45 p.m. **NASA Advanced Airspace Concept** (Dr. H. Erzberger) **(50 min)**		XVI 1:00 p.m. **University Speaker** (Prof. C-H Chen) **(45 min)**
2:30 p.m. Break (15 min)		XVII 1:45 p.m. **University Speaker** (Prof. K. Corker) **(45 min)**
VII 2:45 p.m. **Raytheon** (M.E. Miller) **(50 min)**		2:30 p.m. Break (15 min)
VIII 3:35 p.m. **Blending Plan Discussion** (Dr. W. Dunlay) **(45 min)**		XVIII 2:45 p.m. **Joint Planning and Development Office (JPDO) Speaker** (Dr. S. Borener) **(45 min)**
IX 4:40 p.m. **Report out for TIM Day 1 and Plan for Day 2** (H. Swenson) **(15 min)**		XIX 3:30 p.m. **Panel Discussion (30 min)**
		XX 4:00 p.m. **Closing Remarks** (H. Swenson) **(15 min)**
Adjourn 4:40 p.m.		Adjourn 4:15 p.m.

TIM Logistics

- **Microphones**
  - We are recording these proceedings. Please use the centrally located microphone for your questions so that we may capture them accurately.
- **Phone Calls**
  - Messages can be left at (650) 604-2926 or 604-2082
- **Computing**
  - Macintosh computers and hookups for laptops are available for your use in the Fireside Area.
  - There is a power strip and an analog line available at each row of tables.
  - Wireless is available in the ballroom – instructions are available at the registration desk.
- **Restrooms**
  - Located on the right side of the ballroom and on your left as you pass the registration area.
- **Refreshments and Beverages**
  - Are for those who have registered (and paid) accordingly.